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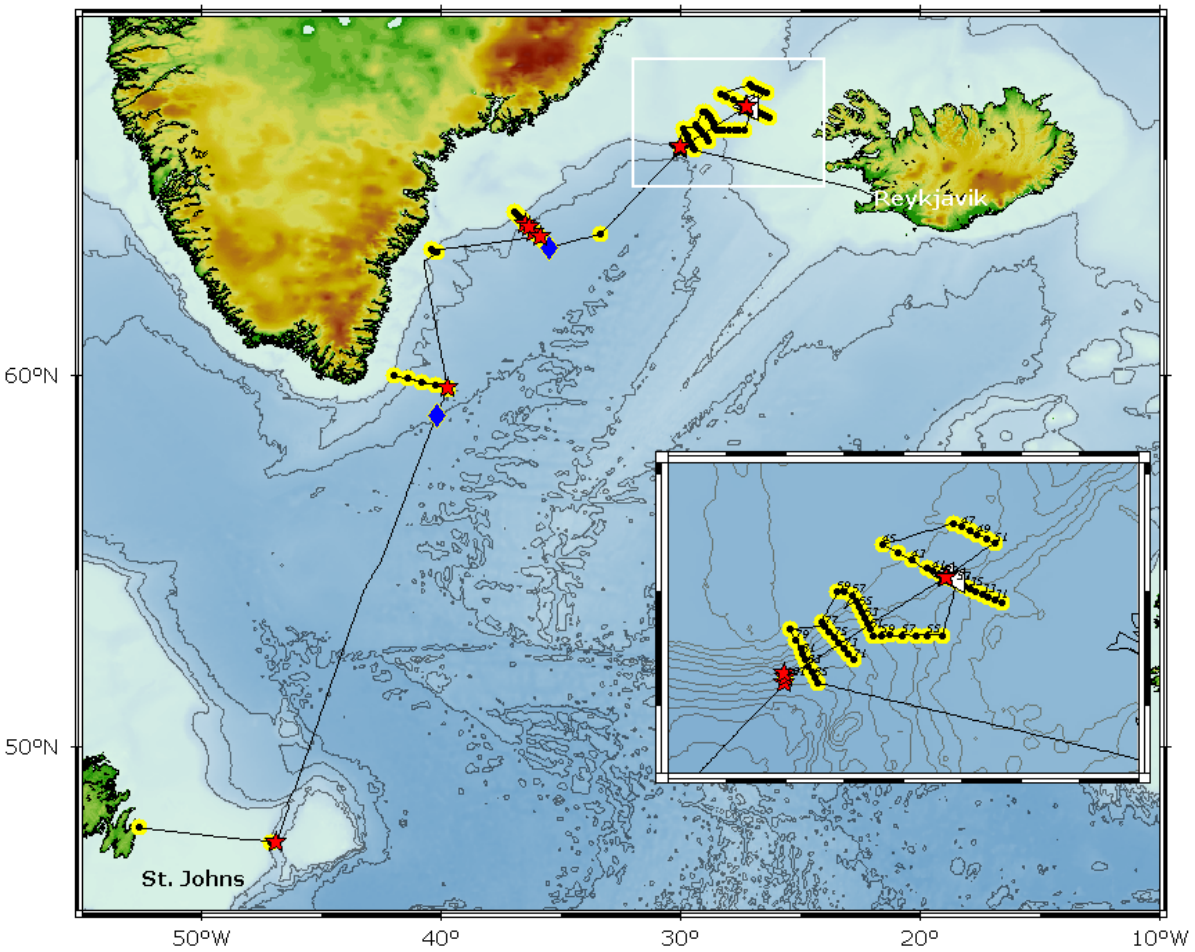
Summary Cruise Report
RV METEOR Cruise M85-2

St. Johns – Reykjavik
05. August – 25. August 2011
Chief scientist: Johannes Karstensen
Captain: Michael Schneider



RV METEOR M85/2 cruise track from St. Johns to Reykjavik. Yellow dots indicate CTD+ casts, blue symbols Argo float deployments, red stars mooring operations, white triangle PIES deployments.

Objective

The Meteor M85/2 expedition was carried out jointly by the IFM-GEOMAR at the University of Kiel and the Institut für Meereskunde at the KlimaCampus of the University of Hamburg. The main objectives of the cruise were related to studies on water mass transformation processes and transports in the northern North Atlantic. Cruise objectives included:

- Installation of a pilot-mooring array to study the export of deep waters from the Labrador Sea through Flemish Pass
- Redeployment of a mooring in the Central Irminger Sea (CIS), including the installation of two new types of open ocean data telemetry systems
- Recovery of three (DS5, DS6, DS7) and redeployment of five (UK1, UK2, F2, G1, DS2) moorings related to study of mixing and entrainment processes in the Denmark Strait overflow
- Acquisition of synoptic hydrography/currents/oxygen/CFC data at key sections in the overflow region
- Deployment of two Argo floats (with oxygen sensors)

The scientific aspects of this work are supported through the BMBF project “North Atlantic” and the EU FP7 project THOR. In addition to the above mentioned institutions, a technician from the U.K. Lowestoft Laboratory of CEFAS, U.K., and eight students from the Universities of Kiel and Hamburg, from Technical University of Talinn, Estonia, and from Princeton University, U.S. participated in the cruise and supported the field work conducted.

Narrative

RV METEOR sailed on the 5. August at 09:04 local time in St. Johns, Newfoundland, Canada. First a CTD/O2/lADCP station was made just 10nm off the harbour and at the Canadian time series station “Station 27” at 47° 32.80'N/052° 35.20W, water depth 176m. The CTD with rosette water sampler from the Institut für Meereskunde ZMAW, Hamburg, was used with double T and C sensors and a single O2 sensor. After this first station we installed some additional sensors (PAR/SPAR and fluorometer) from the RV METEOR board CTD and we also used the RV METEOR SBE-11 deck unit (as it had the SPAR port).

We headed eastward to our first mooring-related working area, Flemish Pass. Here, two moorings were deployed, the FP1-11 (2 RCM8, 2 MC) and the FP2-11 (75kHz ADCP, 1 MC). This mooring installation is a pilot-array to test the feasibility of measuring the flow characteristics through Flemish Pass. Just a few days before our cruise, a detailed CTD survey of the Flemish Pass area was performed during M85/1 (chief scientist D. Kieke, IUPB) and therefore we recorded only one CTD/O2/CFC/lADCP (from now on CTD+) cast, at the FP2-11 location. Despite high seas (+4m) and strong winds (up to 8 Bft) the mooring deployments went well. We left the Flemish Pass working area and headed northward, for the southern Irminger Sea. Because of strong head winds and waves, the 900nm transit took more than 5 days, from 7. August to 12. August. The thermosalinograph did not work properly during parts of this transit, and only after several

attempts it could be repaired. Apparently a small obstacle (maybe a shell) was blocking a tube and measurements were not of use. During transit, the telemetry systems of the THOR pop-up frame and the Molab surface telemetry were successfully tested. The transit was also used for seminars on different topics the scientific crew was working on and for a safety drill (man over board manoever).

The winds and waves calmed down with our arrival at the central Irminger Sea working area. On the 12.08.2011 early morning an Argo float (with O2 sensor) was launched near the CIS mooring site, accompanied with a CTD+ cast for later calibration of the float data. The recovery of the CIS mooring started after beakfast and after 2 hours all instruments were safely recovered on deck. Five CTD+ cast towards the Greenland coast followed the recovery to obtain information about the hydrography and currents at the western boundary of the Irminger Sea. On the next morning, the 13.8.2011, the CIS-11 mooring was deployed in 4hours time, without problems and in perfect weather conditions.

From the CIS working area we headed Northwest, towards the Greenland Coast to recover an ADCP lander (UK-ADCP-07) that was installed here in 2007 to measure freshwater fluxes along the shelf break. At night a small sailing yacht was spotted at the horizon and we had a short communication with its crew, which turned out to be German and sailing to Reykjavik. We studied different ice charts and found that the recovery of an ADCP lander might be possible. Approaching the site we found more drifting Brash ice than expected and, as RV METEOR does not have the appropriate ice class, the search for the lander was terminated. A repeat CTD+ section was performed instead, covering the shelf break to the ice edge. The EM122 logging was switched on, as requested by the next leg (M85/3) chief scientist S. Brix, who will also be responsible for the data processing.

The next working area was the “Angmagssalik array”, located at approximately 63°N. On the 15. August 2011 all four moorings of the Angmagssalik array (UK1-10, UK2-10, F2-10, G1-10) were recovered. In addition, the G1-11 mooring was deployed. It was a very clear day and although being more than 90nm away from the coast, we had a clear view on an impressive Greenland mountain massive on the horizon. Releasers were tested on one deep CTD+ cast and a CTD+ section was made along the Angmagssalik array. On the 16. August the three remaining moorings of the Angmagssalik array (UK1-11, UK2-11, F2-11) were deployed.

Our last working area, the Denmark Strait, was reached on the 18. August 2011. We first recovered three ADCP/MC mooring (DS5-10, DS6-10, DS7-10). This array of ADCPs, with only 2nm apart from each other, was installed to collect data to study sub-mesoscale processes in the overflow. As a contribution to this experiment, a 14 hours CTD/lADCP Yo-Yo station was made at the central DS06 location. For the Yo-Yo station, the CTD rosette was undulating between 700m and the bottom (approx. 1400m), recording 29 times high resolution profiles of temperature, salinity, oxygen, and turbidity. The data revealed the amazing variability at this location.

Our last mooring operation was the recovery of the DS2-10 mooring, located at the sill depth of Denmark Strait. The acoustic tracking of the releaser worked well and confirmed release. Unfortunately the mooring did not come to the surface, and several attempts were not successful in bringing the ADCP and MC up. We surveyed the area with the EM122, with the hope to identify traces of the mooring in the echo sounding, but the resolution was too coarse. We decided to continue CTD work along the DS section over night and return to the DS2 site on the next morning to dredge for the mooring. At night we also passed-by the DS2 site and the releaser answered promptly, so we still could be sure that the mooring was at place. Next morning we made a

acoustic survey triangulation and confirmed the estimated position from the last years' deployment protocol. Then we started dredging by deploying a steel wire on a 1km diameter 1/2 circle around mooring position and slowly pulling it in, but without success. A dredging on a smaller diameter (500m) and a more closed circle around the mooring failed as well. The very likely problem is that the whole mooring sticks out only by 7 to 8m from the ground and which is probably not high enough to be caught by the dredge wire. Using equipment of the recovered DS5 to DS7 array, which was planned to go to the Faroe-Shetland Channel, a "substitute" mooring (DS2-11) was assembled and deployed next to the DS2-10. After this deployment, two PIES were deployed at DS2 and shortly after at DS1.

The remaining expedition time was used for CTD+ surveys in the overflow at different distances from the sill. The winds and waves picked up again, but the program was not much affected. For the last CTD section (station 78 to 86) we used the RV METEOR CTD system, mainly to prepare the system for use by our colleagues during M85/3. The change of the CTD system went very well and at a first glance the RV METEOR CTD seemed to operate very well. The salinity calibration will, however, be made at a later stage after analysing the bottle samples at IfM Hamburg. The last CTD/O2 station was completed on the morning of the 24. August 2011. The scientific program ended when entering Icelands 12nm zone of Iceland and all logging was switch off (EM122, DVS and ADCP). RV METEOR was moored alongside the pier in Reykjavik on the 25. August 2011 at 09:20 and the M85/2 expedition ended.

Acknowledgements

We like to thank Captain Michael Schneider, his officers and the crew of RV METEOR for their support of our observational program and the hospitality on board. The ship time was provided by the Deutsche Forschungsgemeinschaft within the METEOR/MERIAN core program. Financial support for the different work carried out during the expedition was provided by the EU-projects THOR and EuroSITES and by the German Ministry of Education and Research through the "Nordatlantik Programm". We also benefited from financial contributions by the research institutions involved.

Cruise participants

	Name	Function	Institut
1	Johannes Karstensen	Chief scientist	IFM-GEOMAR
2	Michael Brüdgam	CTD/(l)ADCP watch	IfM-ZMAW
3	Andrew Budnick	Student, Oxygen titration	PU
4	Mateusz Cienciala	Student, CFC/SF6	IUPHB
5	Ulrich Drübbisch	Mooring, logistics	IfM-ZMAW
6	Carolin Hauer	Student, CFC/SF6	IUPHB
7	Kerstin Jochumsen	CTD/(l)ADCP watch	IfM-ZMAW
8	Julia Köhler	Student, CTD/(l)ADCP watch	IfM-ZMAW
9	Uwe Koy	Mooring, logistics	IFM-GEOMAR
10	Taavi Liblik	Student, CTD/(l)ADCP watch mooring	TTU
11	Wiebke Mertens	CTD technician	IFM-GEOMAR
12	Katharina Müller	Student, Oxygen titration	IFM-GEOMAR
13	Daniel Madsen	Public outreach THOR	Alphafilm
14	Neil Needham	Mooring, logistics	CEFAS
15	Hanna Paulsen	Student, CTD/(l)ADCP watch	IfM-ZMAW
16	Norbert Verch	CTD/(l)ADCP watch, Salinometer	IfM-ZMAW
17	Andreas Raeke	Meteorology	DWD

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IUPHB: Institut für Umweltphysik, University of Bremen, Bremen, Germany
CEFAS: Centre for Environment, Fishery and Aquaculture Science, Lowestoft, U.K.
PU: Princeton University, Princeton, USA
TTU: Talinn Technical University, Talinn, Estonia
Alphafilm: Alphafilms Aps., Copenhagen, Denmark
DWD: Deutscher Wetterdienst, Hamburg, Germany

List of stations

MOR: Mooring
CTD/RO: CTD rosette sampling (incl. CFC, O2, lADCP)
FLOAT: Argo Float (with Oxygen Optode)

Ship station	CTD/MOORING	Date	Time	Latitude	Longitude	Depth [m]	Gear	Comment
ME852/849-1	1	05.08.2011	13:07	47° 32,79' N	52° 35,23' W	171.3	CTD/RO	
ME852/850-1	2	07.08.2011	08:06	47° 06,00' N	47° 06,79' W	978.2	CTD/RO	
ME852/852-1	FP 02-11	07.08.2011	11:33	47° 05,99' N	47° 06,18' W	1163.2	MOR	mooring deployment
ME852/852-1	FP 01-11	07.08.2011	12:13	47° 06,02' N	46° 51,56' W	1160.7	MOR	mooring deployment
ME852/853-1	3	11.08.2011	23:52	59° 00,00' N	40° 11,99' W	3004.7	CTD/RO	
ME852/854-1	Argo	12.08.2011	02:07	58° 59,96' N	40° 12,33' W	5183.7	FLOAT	
ME852/855-1	4	12.08.2011	05:39	59° 40,18' N	39° 44,25' W	2781.2	CTD/RO	
ME852/856-1	CIS-10	12.08.2011	11:18	59° 41,37' N	39° 42,98' W	2770.1	MOR	mooring recovery
ME852/857-1	5	12.08.2011	12:34	59° 41,10' N	39° 43,55' W	2769.3	CTD/RO	
ME852/858-1	6	12.08.2011	16:24	59° 46,00' N	40° 15,00' W	2606.6	CTD/RO	
ME852/859-1	8	12.08.2011	21:22	59° 49,99' N	40° 50,01' W	2353,0	CTD/RO	
ME852/860-1	9	13.08.2011	01:18	59° 55,00' N	41° 25,03' W	1898.9	CTD/RO	
ME852/861-1	10	13.08.2011	04:34	60° 00,00' N	42° 00,00' W	2200.7	CTD/RO	
ME852/862-1	CIS-11	13.08.2011	17:44	59° 41,18' N	39° 43,80' W	2766.2	MOR	mooring deployment
ME852/863-1	11	14.08.2011	16:09	62° 54,99' N	40° 10,04' W	1510.2	CTD/RO	
ME852/864-1	12	14.08.2011	19:19	62° 56,00' N	40° 14,96' W	1346.7	CTD/RO	
ME852/865-1	13	14.08.2011	21:01	62° 56,95' N	40° 19,85' W	403.8	CTD/RO	
ME852/866-1	14	14.08.2011	22:30	62° 58,42' N	40° 26,46' W	221.6	CTD/RO	
ME852/867-1	UK-2	15.08.2011	11:43	63° 16,73' N	35° 51,85' W	2336.5	MOR	mooring recovery
ME852/868-1	G1-10	15.08.2011	13:38	63° 21,25' N	36° 06,96' W	2177.5	MOR	mooring recovery
ME852/869-1	G1-11	15.08.2011	15:13	63° 21,18' N	36° 06,94' W	2174.4	MOR	mooring deployment
ME852/870-1	UK1-10	15.08.2011	17:07	63° 28,89' N	36° 18,86' W	1955.7	MOR	mooring recovery
ME852/871-1	F2-10	15.08.2011	18:48	63° 33,22' N	36° 30,62' W	1758.7	MOR	mooring recovery
ME852/872-1	15	15.08.2011	20:04	63° 34,00' N	36° 28,06' W	1768.3	CTD/RO	
ME852/873-1	16	15.08.2011	23:24	63° 50,00' N	36° 58,10' W	346.5	CTD/RO	
ME852/874-1	17	16.08.2011	01:01	63° 46,00' N	36° 50,51' W	646.7	CTD/RO	
ME852/875-1	18	16.08.2011	02:55	63° 42,04' N	36° 43,13' W	1679.8	CTD/RO	
ME852/876-1	19	16.08.2011	05:08	63° 38,00' N	36° 35,51' W	1632,0	CTD/RO	
ME852/877-1	20	16.08.2011	07:53	63° 29,99' N	36° 20,52' W	1907.3	CTD/RO	
ME852/878-1	F2-11	16.08.2011	10:25	63° 32,80' N	36° 31,10' W	1762.5	MOR	mooring deployment
ME852/879-1	UK1-11	16.08.2011	12:06	63° 29,00' N	36° 18,00' W	1960.9	MOR	mooring deployment
ME852/880-1	21	16.08.2011	13:30	63° 26,01' N	36° 13,01' W	2065.6	CTD/RO	
ME852/881-1	22	16.08.2011	16:14	63° 22,00' N	36° 06,01' W	2169.6	CTD/RO	
ME852/882-1	UK2-11	16.08.2011	19:06	63° 16,93' N	35° 51,97' W	2335.8	MOR	mooring deployment
ME852/883-1	23	16.08.2011	20:41	63° 18,00' N	35° 59,00' W	2271.8	CTD/RO	
ME852/884-1	24	16.08.2011	23:13	63° 13,99' N	35° 51,56' W	2376.9	CTD/RO	
ME852/885-1	25	17.08.2011	01:39	63° 10,02' N	35° 43,96' W	2482.1	CTD/RO	
ME852/886-1	26	17.08.2011	04:23	63° 06,00' N	35° 36,50' W	2554.3	CTD/RO	
ME852/887-1	27	17.08.2011	07:01	63° 02,03' N	35° 28,83' W	2623.3	CTD/RO	
ME852/888-1	Argo	17.08.2011	08:13	63° 01,92' N	35° 29.10' W	2622.1	Float	slipped
ME852/889-1	28	17.08.2011	15:27	63° 20,00' N	33° 21,00' W	2788.4	CTD/RO	
ME852/890-1	HH DS5 -10	18.08.2011	09:48	65° 12,04' N	30° 00,21' W	0,0	MOR	mooring recovery
ME852/891-1	HH DS6 -10	18.08.2011	10:47	65° 14,46' N	29° 59,94' W	0,0	MOR	mooring recovery
ME852/892-1	HH DS7 -10	18.08.2011	11:34	65° 16,95' N	30° 00,07' W	0,0	MOR	mooring recovery

ME852/893-1	29	18.08.2011	12:12	65° 14,51' N	29° 59,99' W	1365.7	CTD/RO	YOYO CTD Start
ME852/893-1	29	19.08.2011	03:10	65° 14,51' N	30° 00,01' W	1367,0	CTD/RO	YOYO CTD Stopp
ME852/894-1	DS 2-10	19.08.2011	12:16	66° 07,16' N	27° 17,12' W	571.4	MOR	Recovery DS2-10, failed
ME852/895-1	30	19.08.2011	18:30	65° 53,99' N	26° 19,51' W	280.1	CTD/RO	
ME852/896-1	31	19.08.2011	19:19	65° 55,48' N	26° 26,00' W	279.4	CTD/RO	
ME852/897-1	32	19.08.2011	20:12	65° 56,96' N	26° 32,53' W	281.3	CTD/RO	
ME852/898-1	33	19.08.2011	21:00	65° 58,52' N	26° 39,06' W	275.4	CTD/RO	
ME852/899-1	34	19.08.2011	21:49	65° 59,99' N	26° 45,54' W	379.6	CTD/RO	
ME852/900-1	35	19.08.2011	22:43	66° 01,49' N	26° 52,02' W	509.3	CTD/RO	
ME852/901-1	36	19.08.2011	23:49	66° 03,00' N	26° 57,54' W	592.2	CTD/RO	
ME852/902-1	37	20.08.2011	01:04	66° 04,49' N	27° 03,50' W	643.9	CTD/RO	
ME852/903-1	38	20.08.2011	02:23	66° 06,00' N	27° 10,02' W	618.6	CTD/RO	
ME852/904-1	39	20.08.2011	04:02	66° 07,50' N	27° 16,52' W	560.8	CTD/RO	
ME852/905-1	40	20.08.2011	05:29	66° 09,00' N	27° 23,09' W	489.1	CTD/RO	
ME852/905-1	41	20.08.2011	06:36	66° 10,49' N	27° 29,07' W	483.5	CTD/RO	
ME852/906-1	42	20.08.2011	07:38	66° 12,02' N	27° 35,26' W	485.9	CTD/RO	
ME852/907-1	DS 2-10	20.08.2011	11:37	66° 07,28' N	27° 16,90' W	571.4	MOR	DS2-10 Dredgen 1st try. Start
ME852/907-1	DS 2-10	20.08.2011	18:55	66° 07,40' N	27° 15,70' W	571.4	MOR	DS2-10 Dredgen 1st try. End
ME852/909-1	43	20.08.2011	21:41	66° 16,03' N	27° 50,41' W	457.2	CTD/RO	
ME852/910-1	44	20.08.2011	23:01	66° 20,00' N	28° 05,46' W	340.6	CTD/RO	
ME852/911-1	45	21.08.2011	00:14	66° 23,98' N	28° 20,50' W	327.8	CTD/RO	
ME852/912-1	46	21.08.2011	03:52	66° 35,00' N	27° 08,00' W	435.7	CTD/RO	
ME852/913-1	47	21.08.2011	04:58	66° 33,05' N	27° 00,02' W	476.4	CTD/RO	
ME852/914-1	48	21.08.2011	06:04	66° 31,05' N	26° 52,00' W	511.2	CTD/RO	
ME852/915-1	49	21.08.2011	07:12	66° 29,03' N	26° 43,92' W	500.1	CTD/RO	
ME852/916-1	50	21.08.2011	08:21	66° 26,96' N	26° 35,06' W	549.3	CTD/RO	
ME852/917-1	51	21.08.2011	09:48	66° 24,96' N	26° 26,00' W	616.4	CTD/RO	
ME852/918-1	DS 2-10	21.08.2011	12:57	66° 07,03' N	27° 16,46' W	577.3	MOR	DS2-10 Dredgen 2nd try. Start
ME852/918-1	DS 2-10	21.08.2011	17:46	66° 07,08' N	27° 15,17' W	571.4	MOR	DS2-10 Dredgen 2nd try. End
ME852/919-1	DS 2-11	21.08.2011	18:19	66° 07,23' N	27° 16,19' W	571.4	MOR	mooring deployment
ME852/920-1	PIES HH DS 2-11	21.08.2011	18:25	66° 07,25' N	27° 16,16' W	568.7	MOR	PIES deployment
ME852/921-1	52	21.08.2011	18:46	66° 07,25' N	27° 16,15' W	570,0	CTD/RO	
ME852/922-1	PIES HH DS 1-11	21.08.2011	19:53	66° 04,58' N	27° 04,88' W	659.3	MOR	PIES deployment
ME852/923-1	53	21.08.2011	20:20	66° 04,52' N	27° 04,97' W	660.5	CTD/RO	
ME852/924-1	54	21.08.2011	23:50	65° 37,03' N	27° 20,00' W	557.3	CTD/RO	
ME852/925-1	55	22.08.2011	01:11	65° 37,00' N	27° 35,00' W	646.9	CTD/RO	
ME852/926-1	56	22.08.2011	02:31	65° 36,99' N	27° 47,00' W	710.9	CTD/RO	
ME852/927-1	57	22.08.2011	04:01	65° 37,00' N	28° 00,01' W	793.3	CTD/RO	
ME852/928-1	58	22.08.2011	05:34	65° 37,04' N	28° 13,95' W	859.7	CTD/RO	
ME852/929-1	59	22.08.2011	07:00	65° 37,01' N	28° 22,52' W	938.9	CTD/RO	
ME852/930-1	60	22.08.2011	08:26	65° 37,00' N	28° 30,01' W	1025,0	CTD/RO	
ME852/931-1	61	22.08.2011	09:59	65° 40,01' N	28° 33,06' W	1019.5	CTD/RO	
ME852/932-1	62	22.08.2011	11:23	65° 42,99' N	28° 36,03' W	933.6	CTD/RO	
ME852/933-1	63	22.08.2011	12:54	65° 45,99' N	28° 39,03' W	806.6	CTD/RO	
ME852/934-1	64	22.08.2011	14:11	65° 49,00' N	28° 42,01' W	627.7	CTD/RO	
ME852/935-1	65	22.08.2011	15:31	65° 52,00' N	28° 45,01' W	503.1	CTD/RO	
ME852/936-1	66	22.08.2011	16:38	65° 54,92' N	28° 47,85' W	443.3	CTD/RO	
ME852/937-1	67	22.08.2011	19:00	65° 57,95' N	28° 51,00' W	401.5	CTD/RO	
ME852/938-1	68	22.08.2011	20:10	65° 59,96' N	29° 00,01' W	356,0	CTD/RO	
ME852/939-1	69	22.08.2011	21:04	65° 59,98' N	29° 07,03' W	321.1	CTD/RO	
ME852/940-1	70	22.08.2011	23:21	65° 43,67' N	29° 23,31' W	401.2	CTD/RO	
ME852/941-1	71	23.08.2011	02:48	65° 24,00' N	28° 50,02' W	1291.3	CTD/RO	
ME852/942-1	72	23.08.2011	05:13	65° 26,99' N	28° 55,01' W	1269.4	CTD/RO	

ME852/943-1	73	23.08.2011	07:00	65° 29,99' N	29° 00,02' W	1208.8	CTD/RO	
ME852/944-1	74	23.08.2011	09:13	65° 32,96' N	29° 05,06' W	1087,0	CTD/RO	
ME852/945-1	75	23.08.2011	11:06	65° 35,96' N	29° 10,13' W	927.3	CTD/RO	
ME852/946-1	76	23.08.2011	12:55	65° 38,96' N	29° 14,97' W	756.2	CTD/RO	
ME852/947-1	77	23.08.2011	14:55	65° 41,94' N	29° 20,19' W	510.1	CTD/RO	
ME852/948-1	78	23.08.2011	17:21	65° 40,00' N	29° 55,01' W	304.9	CTD/RO	Meteor CTD, no lADCP
ME852/949-1	79	23.08.2011	18:42	65° 34,58' N	29° 49,04' W	347.2	CTD/RO	Meteor CTD, no lADCP
ME852/950-1	80	23.08.2011	20:07	65° 29,97' N	29° 44,14' W	677.4	CTD/RO	Meteor CTD, no lADCP
ME852/951-1	81	23.08.2011	21:39	65° 26,97' N	29° 42,04' W	890,0	CTD/RO	Meteor CTD, no lADCP
ME852/952-1	82	23.08.2011	23:34	65° 23,96' N	29° 39,06' W	1091.2	CTD/RO	Meteor CTD, no lADCP
ME852/953-1	83	24.08.2011	01:14	65° 20,96' N	29° 36,14' W	1262.8	CTD/RO	Meteor CTD, no lADCP
ME852/954-1	84	24.08.2011	02:59	65° 17,95' N	29° 33,04' W	1418.8	CTD/RO	Meteor CTD, no lADCP
ME852/955-1	85	24.08.2011	04:52	65° 15,00' N	29° 30,00' W	1514.1	CTD/RO	Meteor CTD, no lADCP
ME852/956-1	86	24.08.2011	06:55	65° 12,00' N	29° 27,01' W	1582.4	CTD/RO	Meteor CTD, no lADCP